IC 7300 Settings for Digital Modes

This page describes how to adjust the settings on the IC-7300 to use digital modes like FT8, JS8, or Winlink. To make it convenient to switch between digital and voice, we use an SD Card to save the settings and load them up when needed.

Last update: 2020/10/02 07:48

So before doing anything, let's backup the current settings in case something goes wrong:

- Insert an SD Card in the radio.
- Go to MENU → SD Card
- The first time, Format the card. This will erase everything on the card.
- Press Save Setting → New File → Pick a file name.

Later on, these settings can be applied using the Load Setting option.

Connector Settings

Now that the settings are backed up, lets tweak a few things.

VA7FI has the following settings on his radio. The settings in light grey are there for reference only and can be different, but the settings in black should probably match.

MENU → SET → Connectors:	Digital	Voice
ACC/USB Output Select	AF	
ACC/USB AF Output Level	40%	50%
ACC/USB AF SQL	OFF (Open)	
ACC/USB AF Beep Speech Output	OFF	
ACC/USB IF Output level	50%	50%
ACC MOD Level	50%	50%
USB MOD Level	35%-40% ¹⁾	50%
DATA OFF MOD	MIC/ACC	
DATA MOD	USB	
MENU → SET → Connectors → CI-V:		
CI-V Baud Rate	Auto	
CI-V Address	Note it	N/A
CI-V Transceive ON		
CI-V USB→Remote Tx Address	N/A	
CI-V Output (for ANT)	OFF	
CI-V USB Port	Link to [REMOTE]	
MENU → SET → Connectors:		
USB Serial Function	CI-V	
MENU → SET → Connectors → USB SEND Keying:		
USB SEND	RTS	OFF
USB Keying (CW)	OFF	
USB Keying (RTTY)	OFF	
Inhibit Timer at USB Connection	ON	

Filter Settings

Next, we adjust the filter width:

• Press the FIL1 (or FIL2 or FIL3) button at the top of the screen (above the frequency) and select FIL1.

Last update: 2020/10/02 07:48

- Press and hold FIL1 (yes, the same button as before).
- Press the BW button and turn the VFO knob until it says "3.6k"
- Then turn the inner and outer TWIN PBT knobs (top left) to adjust the boundaries to 600 and 2600 (even though the picture shows 650 and 3400).²⁾
- Optionally, press FIL1 again to also customize FIL2 and FIL3 in the same fashion.
- When done, press the MENU button and select the screen you usually like to see (SCOPE, METER, etc)



Digital and Voice settings

Let's now set settings that will be specific to the voice and digital modes.

Start by adjusting all the settings in the Voice column:

Mode	Voice	Digital	
Defaut Frequency	3.729.00 LSB	7.078.00 USB-D	
MUTI (select and turn the knob)			
RF POWER	100%	30%	
MIC GAIN	40%	40%	
COMP	ON 4	N/A	
MONITOR	OFF 100%	ON 100%	
FUNCTION			
P.AMP ATT	OFF	OFF	
AGC	SLOW	MED	
NOTCH	OFF	OFF	
NB	ON	OFF	
NR	OFF	OFF	
IP+	OFF	OFF	
VOX	OFF	OFF	
COMP	ON	N/A	
1/4	WIDE	OFF	
MONI	OFF	ON	

• Now save the settings to the SD Card and call the file 1Voice

Before we set the digital settings, move on to the next section and come back here after.

ACG Adjustments

For digital modes, we don't want any ACG:

- Pick a clear frequency.
- Press FUNCTION button.
- Press and hold the AGC button.
- Select the FAST button and turn the VFO knob until it reads OFF.
- Optionally, set the MID to 0.3s and the SLOW to 2.0s.
- Press MENU and select SCOPE, or METER, or ...

Now that the ACG is set, go back to the previous section and apply the settings in the Digital column. When complete, save to the SD card under the name 2Digital.

Last update: 2020/10/02 07:48

Loading Settings

To load the settings: $\overline{\text{MENU}} \rightarrow \text{SET} \rightarrow \text{SD}$ Card $\rightarrow \text{Load}$ Setting $\rightarrow \text{1Voice}$ or $\text{2Digital} \rightarrow \text{ALL} \rightarrow \text{YES}$ and restart.

References

- YO3HJV Setting up IC-7300 and Winlink Winmor TNC
- Winlink with IC-7300
- JS8Call Getting Started

1)

Change the USB MOD Level to adjust the ALC, which should be about 2/3 in the red when transmitting.

2)

The filter boundaries can be tweaked anytime on the fly to filter out unwanted signals at the edge of the band. This is useful if say you've got strong RTTY signals activating your AGC, thus reducing the strength of the signals you're interested in.